

# RENEWABLE ENERGY: FEDERAL TAX INCENTIVE OVERVIEW

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Challenge for  
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# OVERVIEW

- This presentation will address the federal income tax incentives available for renewable energy facilities, especially in light of the changes effected in The American Recovery and Reinvestment Act of 2009 (“ARRA”), more commonly known as the “stimulus” act, which was adopted in February 2009, and the programs promulgated as a result of ARRA

# OVERVIEW

- For many years, the Production Tax Credit (“the PTC”) was the principal federal tax incentive for wind and many other forms of renewable energy
- With ARRA, the PTC is no longer the only game in town for these types of renewable energy
- Now, owners have the choice of opting out of the PTC into the investment energy tax credits (“ITC”), and, for a limited time, an additional choice of opting out of the ITC into a Section 1603 cash grant in lieu of the ITC

# The Production Tax Credit

- The PTC is provided under Section 45 of the Internal Revenue Code and until recently was the principal federal incentive for wind and certain other forms of renewable energy project development and the primary motivation for the tax credit equity investments in these types of renewable energy

- The PTC is available with respect to electricity produced from “**qualified energy resources**”:
  - Wind;
  - Closed-loop biomass;
  - Open-loop biomass;
  - Geothermal (note this is only if for electricity)
  - Solar (but only if placed in service prior to 1/1/06);
  - Small irrigation power;
  - Municipal solid waste;
  - Qualified hydropower production; and
  - Marine and hydrokinetic renewable energy.

# THE PTC

- Like other Federal tax credits, the PTC is a dollar-for-dollar reduction in Federal income tax liability
- Under current law (after extensions in October 2008 and again in ARRA in February 2009), a wind facility must have been placed in service prior to **January 1, 2013** in order to be eligible for the PTC and facilities generating electricity from qualified energy resources other than wind must have been placed in service prior to **January 1, 2014** in order to be eligible for PTCs

# Amount of the PTC

- The PTC is currently (for the year 2011) 2.2 cents per kilowatt hour of electricity produced by the taxpayer and sold to an unrelated person, for a 10-year period beginning on the date the facility was originally placed in service
- So, the amount of the PTC depends upon the amount of electricity generated and sold

# PTC Reduction for Certain Facilities

- The price referenced is reduced by 50% for certain types of generation: open-loop biomass, small irrigation power, landfill gas, trash combustion, qualified hydropower and marine and hydrokinetic energy facilities (so, 2.2 cents for 2011 becomes 1.1 cents when rounded to the nearest 0.1 cent for electricity produced by these qualified energy resources)



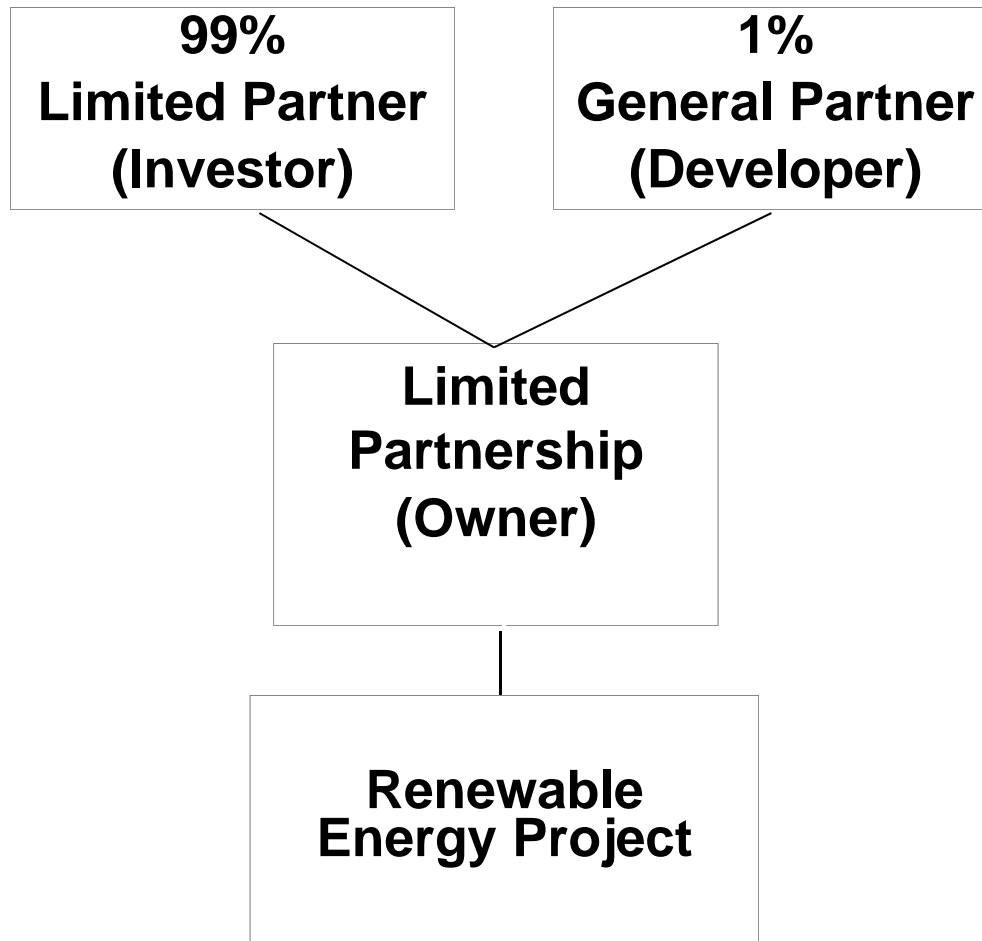
# THE PTC

- The “Produced by the Taxpayer” requirement means that the owner of the energy project receives the PTCs (with an exception allowing a biomass facility to pass the PTCs to a lessee or operator of the facility)
- So, you can’t just sell PTCs or generally pass through PTCs by utilizing a leasing structure; you generally have to make the investor claiming the PTCs an owner of the renewable energy facility

- Why bring in a tax equity investor?
- Most renewable energy facility developers either: (i) do not anticipate having Federal income tax liability for the next 10 years such that they will be able to take advantage of the PTCs themselves, or (ii) need to monetize the PTCs up front in order to help pay for the costs of developing the facility

- The way to structure a transaction so that there is more than one owner for tax purposes is generally to use a limited partnership or a limited liability company
- For tax purposes, a partnership (which includes a limited liability company) is not recognized as an entity, so that the partners are treated as owners as to their allocable interests in the partnership

- A simple syndication structure for a renewable energy facility is as set forth on the following slide:



# PTC POINTERS

- The PTC is reduced by up to 50% to the extent that project costs are funded by (i) federal, state or local government grants for use in connection with the project, (ii) the proceeds of state or local tax-exempt obligations, (iii) subsidized energy financing provided directly or indirectly by federal, state or local programs or (iv) other credits allowable with respect to any property which is part of the project

## PTC VALUE

- The amount of the PTC, currently 2.2 cents per kilowatt hour of electricity generated for 2011, is re-calculated by the IRS for each year of the PTC period of a facility based upon a cost-of-living formula (it was 1.9 cents per kilowatt hour for 2006, 2.0 cents per kilowatt hour for 2007, 2.1 cents per kilowatt hour for 2008 and 2009, and 2.2 cents per kilowatt hour for 2010)

# DEPRECIATION DEDUCTIONS

- Facilities are generally depreciated over 5 years (5-year MACRS), so losses accumulate quickly
- For facilities placed in service in 2011, generally 100% of the facility can be depreciated in 2011, and for facilities placed in service in 2012, generally 50% of the facility can be depreciated in 2012 (often called “**Bonus Depreciation**”)
- Whether or not **Bonus Depreciation** will be available in 2013 or subsequent years is an open question



# CASH FLOW

- Project Cash Flow generally comes from two sources:
  - Payments for electricity, generally through a power purchase agreement or (at least in theory) by merchant sales
  - Monetization of renewable energy certificates (RECs), which vary greatly, depending on whether or not a state has a Renewable Portfolio Standard (RPS) and its terms
- In some states there are also state incentives or grants which subsidize operations

# CASH FLOW

- The cash returns to a tax equity investor can vary greatly, as some properties produce significant cash flow while others do not
- The tax equity investor (through its tax manager) often only wants to remain in the transaction for the duration of the tax benefits, 10 years for most PTC transactions
- After the tax benefit period, it is generally intended that the tax equity investor exit the transaction (more about that later)

# RETURN TO TAX EQUITY INVESTOR

- The return to the tax equity investor is a combination of the PTCs, the depreciation losses, and the cash flow, and an IRR is computed based on these three benefits
- As a result the financial models for the facility are closely scrutinized for each transaction

## PTC or ITC?

- Under ARRA, beginning with 2009, the owners of PTC-eligible facilities can elect **not** to claim the PTC, but, rather, to claim the ITC under Section 48 of the Code instead (See IRS Notice 2009-52, issued June 5, 2009)
- The ITC under Section 48 was not new, but had been available for some time for solar facilities, so there was established learning available to apply by analogy to other types of renewable energy facilities

## SECTION 48 ITCs

- Prior to ARRA, ITCs had been available, generally, only for “energy property”, which for these purposes was equipment which used:
  - solar energy to generate electricity,
  - solar energy to heat or cool (or provide hot water for use in) a structure,

# THE ITC

- solar energy to provide solar process heat, or
- solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight.
- Note, however, that energy property which is used to generate energy for the purposes of heating a swimming pool is not eligible for the ITC

# THE ITC

- There are also other types of property which can independently claim ITCs, such as qualified fuel cell property, qualified microturbine property, combined heat and power system property, small wind energy property (up to 100 kW) and geothermal using ground water as a thermal energy source to heat or cool a structure
- And, of course, there are now added to these the facilities otherwise eligible for the PTC who have opted out of the PTC and into the ITC

# THE ITC

- The ITC for a renewable energy facility is generally **30%** of the qualifying eligible cost of the facility for solar, fiber-optics and small wind, and **10%** for geothermal (using ground water as a thermal energy source to heat or cool a structure), fuel cells, microturbines, and combined heat and power
- So, the amount of the ITC is based upon the cost of the facility, not upon the amount of energy produced
- Certain costs do not go into the 30% (or 10%) basis calculation: e.g., operating reserves, permanent loan fees



# Combined Heat and Power

- In order to be eligible for the Section 48 tax credit, combined heat and power system property must be property comprising a system:
  - Which uses the same energy source for the simultaneous or sequential generation of electrical power, mechanical shaft power, or both, in combination with the generation of steam or other forms of useful thermal energy (including heating and cooling applications)
  - Which produces:
    - At least 20% of its total useful energy in the form of thermal energy which is not used to produce electrical or mechanical power (or combination thereof), and

# Combined Heat and Power

- At least 20% of its total useful energy in the form of electrical or mechanical power (or combination thereof),

The energy efficiency percentage of which exceeds 60%, and

Which is placed in service prior to January 1, 2017

The energy efficiency percentage of a system is a fraction, determined on a Btu basis, the numerator of which is the total useful electrical, thermal, and mechanical power produced by the system at normal operating rates and expected to be consumed in its normal application, and the denominator of which is the lower heating value of the fuel sources for the system.

# Combined Heat and Power

- In the case of combined heat and power system property with an electrical capacity in excess of the “applicable capacity” place in service during a taxable year, the credit for such year is equal to the amount which bears the same ratio to such credit as the “applicable capacity” bears to the capacity of the property
- The “applicable capacity” means 15 MW or a mechanical energy capacity of more than 20,000 horsepower or an equivalent combination of electrical and mechanical energy capacities

# Combined Heat and Power

- For the purposes of this provision, the term “combined heat and power system property” does not include any property comprising a system if such system has a capacity in excess of 50 MW or a mechanical energy capacity in excess of 67,000 horsepower or an equivalent combination of electrical and mechanical energy capacities

# Combined Heat and Power

- For the purposes of this credit, the energy efficiency percentage of a system is a fraction, the numerator of which is the total useful electrical, thermal, and mechanical power produced by the system at normal operating rates, and expected to be consumed in its normal application, and the denominator of which is the lower heating value of the fuel sources for the system, determined on a Btu basis
- Combined heat and power system property does not include property used to transport the energy source to the facility or to distribute energy produced by the facility

# THE ITC

- The ITC is claimed in full when the renewable energy facility is placed in service and in daily operation (subject to certain “progress expenditure” exceptions)
- The ITC is subject to recapture over a 5-year period, vesting 20% per year

# THE ITC

- Unlike the situation with the PTC, there is no requirement that electricity be sold to an unrelated person in order to receive the ITC
- When claiming the ITC it is easier to use a facility “behind the meter” or for “distributed generation” without having to come up with a third party sale of the electricity, a real plus for some smaller facilities not selling electricity to a utility or other institutional buyer of electricity

# THE ITC AND DEPRECIATION

- The ITC reduces the basis available for depreciation by 50% of the ITC claimed
- Since the ITC is generally a 30% (or 10%) tax credit, a basis reduction of 50% of the 30% (or 10%) ITC is 15% (or 5%), meaning that you only get to depreciate 85% (or 95%) of the otherwise available depreciable basis
- There is no basis reduction when claiming the PTC, so when claiming the PTC you depreciate 100% of the calculated depreciable basis



# THE ITC

- Leasing structures can be used to pass through the ITC; this opens up additional transaction structures, such as sale-leasebacks and lease pass-throughs (sometimes called inverted leases) which generally cannot be utilized when claiming the PTC
- The ITC, unlike the PTC, is not reduced due to the presence of grants, tax exempt bond financing or other “subsidized energy financing”

# THE ITC

- The entire amount of the ITC can be used to offset **Alternative Minimum Tax**
- For the PTC, only during the **first four years** of the ten-year tax credit period can the PTC be used to offset Alternative Minimum Tax
- Facilities which were eligible for only 50% of the otherwise applicable PTC (such as open-loop biomass) can claim the full ITC

# ITC OR CASH GRANT

- Section 1603 of ARRA also included a short-term election to opt from the ITC (even if eligible for the ITC by electing a switch from the PTC) to a dollar-for-dollar Treasury cash grant payment in lieu of the ITC
- ARRA directs Treasury to fund the grants within 60 days of the later of (i) grant application or (ii) the date the facility is placed in service
- 21 days to respond to application comments

## ITC OR CASH GRANT

- Section 1603 Treasury cash grants are currently available only for facilities (i) placed in service in 2009, 2010 or 2011 or (ii) on which construction is commenced in 2009, 2010 or 2011 and placement in service is by 2012 for wind, 2013 for other PTC-eligible resources, and by 2016 for solar and other facilities eligible for the ITC other than through PTC eligibility

# CASH GRANTS

- The Section 1603 cash grants monetize the ITC on a dollar-for-dollar basis, but do **not** monetize the depreciation
- The depreciable basis of the facility is reduced by 50% of the cash grant received (so the effect on depreciation is the same as if the ITC had been claimed)

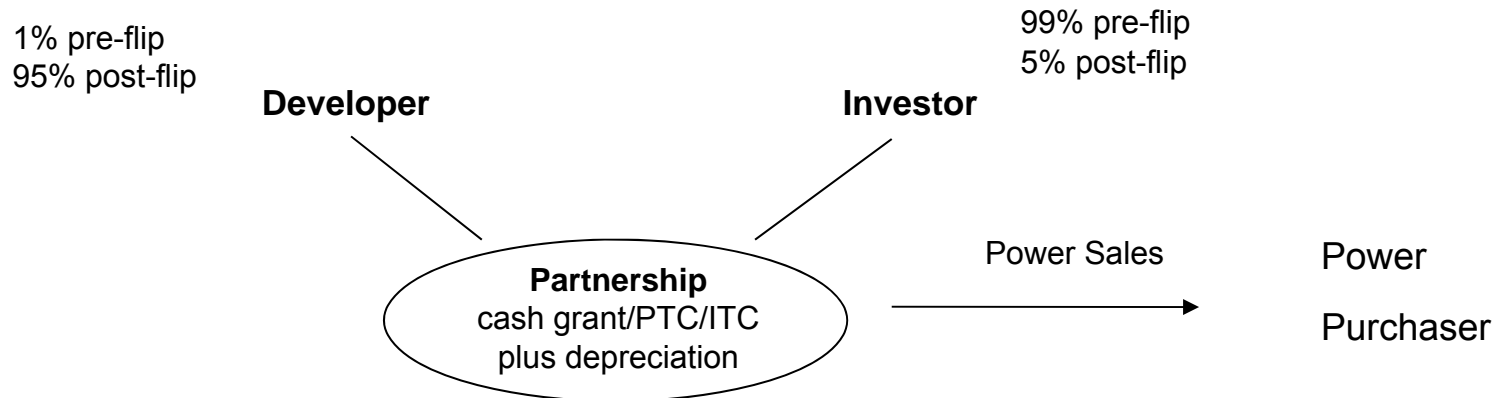
# CASH GRANTS

- These grants cannot be made to Federal, state or local governments (or any political subdivision, agency or instrumentality thereof), to any organization described in Section 501(c) of the Code and exempt from tax under Section 501(a) of the Code, or any partnership or other pass-through entity any partner or equity or profits holder of which is such a government or tax-exempt entity

# TRANSACTION STRUCTURES

- Traditional “**Flip**” **Model**, often used on PTC transactions, where the developer’s interest flips up once the investor has achieved a yield hurdle
- Traditional **Sale-Leaseback** structure used for equipment leasing
- **Lease Pass-Through** (or inverted lease) structure

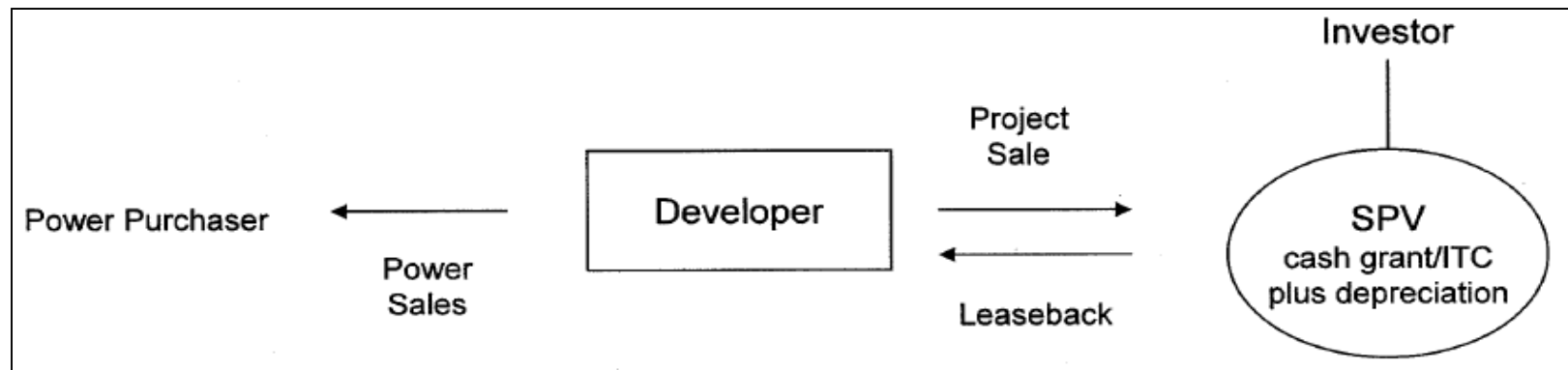
# PTC/ITC/GRANT PARTNERSHIP FLIP



- Investor receives 99% of the PTC/ITC/Section 1603 grant plus 99% of the depreciation
- Flip occurs after investor receives IRR but not within first ten (PTC) or five (ITC or cash grant) years
- Developer generally has purchase option at FMV of Investor interest after flip (when Investor's interest is only 5%)

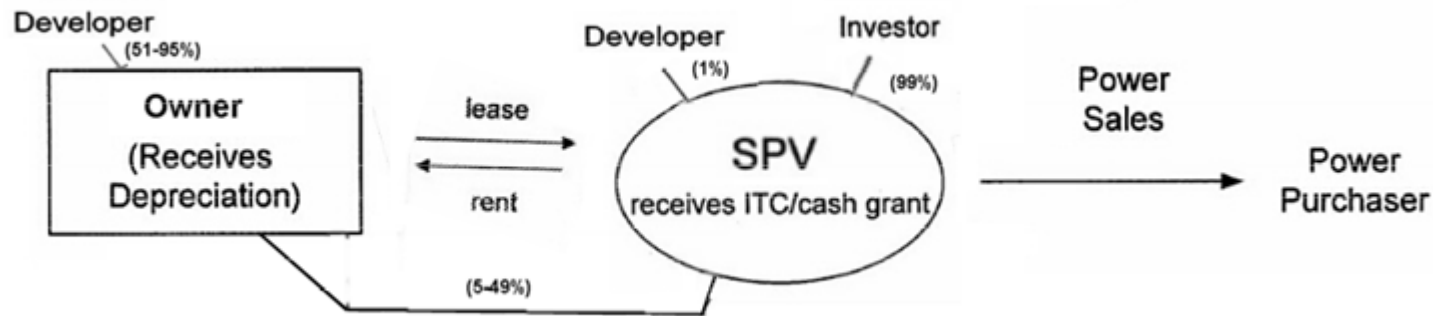


# ITC/GRANT SALE-LEASEBACK



- Developer often has option to acquire property at end of lease term at 100% of facility fair market value
- Lease must qualify as true lease for tax purposes
  - Minimum investment of 20%; No put right by Lessor; No Lessee investment; No Lessee loans or guarantees; Lessor profit

# ITC/GRANT LEASE PASS-THROUGH



- No basis reduction as a result of ITC/cash grant, but Investor takes half the credit/cash grant into income over five years
- Tenant can own a minority interest in Owner entity to receive some depreciation and shelter income
- Lease must qualify as true lease for tax purposes
- Lease must qualify for credit pass through election

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